

Beta Probes

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B.25 and B.5

Small probes with 0.25 inch (6 mm) and 0.5 inch (12 mm) disc phosphors, for beta detection over a wide energy range. Their compact design is best suited to monitoring small objects with limited accessibility.

B1

The B1 has a 1 inch diameter (5 cm²) plastic scintillator detecting beta over a wide energy range, and also responds to alphas and gammas.

- Connector: MHV



B1 probe



BP1/4A probe

BP1/4A

A small, end window GM probe with an integral cable, designed to detect high energy beta, x-rays and gamma rays. Suitable for teaching and demonstration purposes and also used to pinpoint x-ray shield leakage.

- Connector: PET.


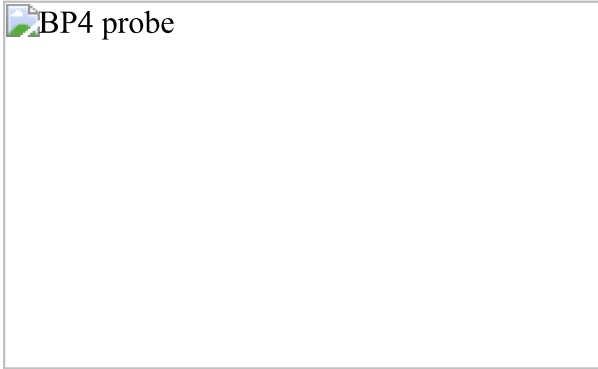
B50

A large scintillation probe that detects alpha, low and high energy beta and gamma.

- Low profile probe
- Open frame window for maximum beta sensitivity.
- Uniformity within $\pm 10\%$ for alpha and high energy beta
- Easily replace window assemblies
- Protective storage cover included
- Connector: MHV.



B50 probe

 BP4 probe**BP4/4A, BP4/4B, BP4/4C**

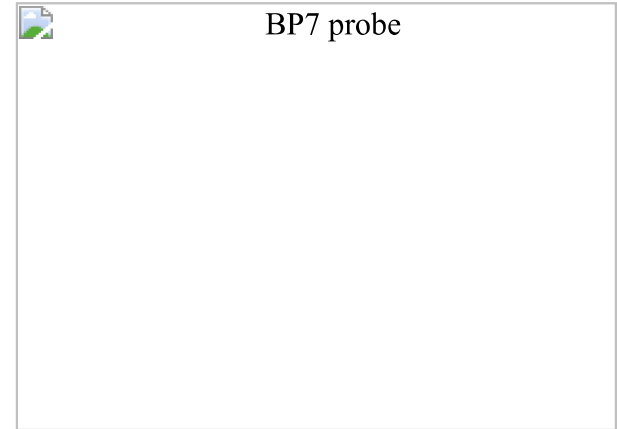
A scintillation beta probe with high sensitivity to low, medium and high energy beta radiation.

- Circular radiation window suits 50 mm filter paper wipes
- Matched to 710C Lead Castle for counting beta
- Choice of spacings, window-grille: BP4/4A, 3 mm; BP4/4B, 6 mm; BP4/4C, 9 mm
- Connector: PET
- Beta calibration sources: 14C beta RRS 12A, 36Cl beta RRS 14A.

BP7/4A, IBP7B


Large area scintillation probe with an anthracene phosphor for general purpose monitoring of low, medium and high energy beta.

- Premium beta over gamma response suits high background applications
- 45° angled radiation window
- BP7/4A connector: PET
- Calibration sources: 14C beta RRS 22A, 36Cl beta RRS24A.


 BP7 probe**BP13A, IBP13B**

Robust, side-window scintillation probe with a cylindrical plastic phosphor and strong convex grille, for low/medium and high energy beta for on-plant survey work where hot particles may pose a hazard.

- Wide angle response -see graph
- Higher sensitivity than side-window GM probes
- Extra effective for edges, corners and rebates
- Connector: PET
- Calibration source, 36Cl beta RRS64A.









BP13 probe




BP17A

Very large light weight scintillation probe to monitor for low/medium and high energy beta. Used for fast and thorough beta monitoring of all flat surfaces.


-  Good efficiency to 60Co beta and higher beta energies
-  Very sensitive to large area, low level emission
-  Weight only 1.5 kg (3.3 lb)
-  Connector: PET
-  Calibration source, 36Cl beta RRH14B






BP17 probe



BP19 probe



- BP19AD, IBP19BD
- Large scintillation probe with a BC408 plastic phosphor in a light alloy diecast housing, Used for general purpose and large area monitoring for low, medium and high energy beta. The BP19AD is the premium version with lower background response and higher low energy beta response.
-  Slim profile, low weight
 -  Connector: PET
 -  BP19 Calibration sources: 14C beta RRS52A; 36Cl beta RRS54A.

Comparison Table

Order Code	Radiation Window		Efficiencies (% Surface Emission)		Background		137Cs (gamma) Response		Weight	
	Area	Shape	Alpha	Beta	cps	cpm	cps per µSv/h	cpm per 100µR/h	kg	lb

	(cm ²)		²³⁰ Th	¹⁴ C	⁹⁹ Tc	⁶⁰ Co	³⁶ Cl	⁹⁰ Sr/ ⁹⁰ Y					
B.25	3.16	disc	45%	15%	25%			45%				15	
B5	12.67	disc	45%	15%	25%			45%	0.8			50	
B1	5	disc	>= 50%	15%	25%			45%	2.5			150	0.235 0.5
B50	50	rectangle	>= 50%	15%	25%			45%	50			3000	0.76 1.7
BP1/4A	1.36	disc						58%	<1.0			30	1800
BP4/4A	20	disc		24%		36%	44%	46%	4	240		25	1500
BP4/4B	20	disc		15%		25%	32%	34%	4	240		25	1500
BP4/4C	20	disc		11%		21%	25%	27%	4	240		25	1500
BP7/4A	50	square		18%		27%	39%	41%	4	240		12	720 0.75 1.7
BP13A	80	annular				9%	15%	16%	7	420		60	4200 0.875 2
BP17	600	rectangle				19%	36%	42%	28	1680		250	15000 1.55 3.5
BP19A	100	rectangle		14%		32%	49%	51%	<10	<600		50	3000 0.5 1.1

